

PATENT ABSTRACTS OF JAPAN

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(54) NONAQUEOUS ELECTROLYTE BATTERY

(57)Abstract:

PURPOSE: To improve battery characteristics of a nonaqueous electrolyte battery by using as positive electrode active material manganese dioxide in which negative electrode active material such as lithium and sodium is doped by heat treatment under pressure in an aqueous solution of salt of the negative electrode active material.

CONSTITUTION: In comparison with a reference battery

B in which distilled water is used in place of lithium

hydroxide and another reference battery C in which

electrolytic manganese oxide heat treated at a

temperature between 350~430°C is used as positive

electrode active material, the battery A has improved

discharging characteristics. The reason is understood to

be that as negative electrode active material is doped in manganese dioxide serving as

positive electrode active material, on discharging, in addition to the active material in the

negative electrode itself, the negative electrode active material previously doped is diffused in

form of iron in the positive electrode, increasing the diffusion rate. When negative electrode

active material is doped in such as manganese dioxide serving as positive electrode by heat

treatment under pressure in an aqueous solution of salt of the negative electrode active

material, water in manganese dioxide which is difficult to remove can be removed, resulting in

reduction of residual water.

